

INVITATION TO BID

FOR THE CONSTRUCTION OF

State Bridge Rd & Parkway Baptist and John's Creek Parkway at Technology Circle Traffic Signals

BID NUMBER

16-252

Release of Bid: August 18, 2016

Pre-bid Conference August 30, 2016 @ 10:00 AM

Deadline for Questions September 1, 2016 @ 5:00 PM

Bid Due Date September 6, 2016 @ 2:00PM

Questions must be directed to: City of Johns Creek, Purchasing Manager, John T. Henderson, via e-mail to:

john.henderson@johnscreekga.gov

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CITY OF JOHNS CREEK

ITB NUMBER #16-252

ANNOUNCEMENT

The City of Johns Creek is accepting sealed Invitations to Bid (ITB) from qualified firms for the John's Creek Parkway at Tech Circle Traffic Signal Project. Sealed ITB's will be received no later than **2:00 PM. on September 6, 2016 in** the City of Johns Creek Purchasing Office, 12000 Findley Rd., Suite-400, Johns Creek, Georgia, 30097. ITB's received after the above time or in any other location other than the Purchasing Office <u>will not</u> be accepted. A Pre-Bid Conference will be held on **August 30, 2016, at 10:00 AM** at the City Hall, Chattahoochee Conference Room, 4th floor.

The City of Johns Creek, in accordance with Title VI of the Civil Rights Act of 1964 and 78 Stat. 252, 42 USC 2000d—42 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, part 21, Nondiscrimination in federally assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, sex, or national origin in consideration for an award.

ITB packages are available on the City of Johns Creek website (www.johnscreekga.gov). Additional information may be obtained by contacting the Purchasing Office at (678) 512-3233. ITB's shall be presented in a sealed opaque envelope with the ITB number and name clearly marked on the outside of the envelope. The name of the company or firm submitting an ITB response should also be clearly marked on the outside of the envelope. (TWO (2) ORIGINALS AND ONE (1) COPY OF THE ITB ON CD MUST BE SUBMITTED.) ITB's will not be accepted verbally or by fax or email. All offerors must comply with all general and special requirements of the ITB information and instructions enclosed herein.

The City of Johns Creek reserves the right to reject any or all bids and to waive technicalities and informalities, and to make award in the best interest of the City of Johns Creek.

BID FORM

TO: PURCHASING MANAGER CITY OF JOHNS CREEK JOHNS CREEK, GEORGIA 30097

Ladies and Gentlemen:

In compliance with your Invitation To Bid, the undersigned, hereinafter termed the Bidder, proposes to enter into a Contract with the City of Johns Creek, Georgia, to provide the necessary machinery, tools, apparatus, other means of construction, and all materials and labor specified in the Contract Documents or as necessary to complete the Work in the manner therein specified within the time specified, as therein set forth, for:

State Bridge Rd & Parkway Baptist and John's Creek Parkway at Technology Circle Traffic Signals

The Bidder has carefully examined and fully understands the Contract, Specifications, and other documents hereto attached, has made a personal examination of the Site of the proposed Work, has satisfied himself as to the actual conditions and requirements of the Work, and hereby proposes and agrees that if his bid is accepted, he will contract with the City of Johns Creek in full conformance with the Contract Documents.

Unless otherwise directed, all work performed shall be in accordance with the Georgia Department of Transportation *Standard Specifications, Construction of Transportation Systems* (current edition). All materials used in the process of completion of the work included in the Contract will be furnished from Georgia Department of Transportation certified suppliers only.

It is the intent of this Bid to include all items of construction and all Work called for in the Specifications, or otherwise a part of the Contract Documents.

In accordance with the foregoing, the undersigned proposes to furnish and construct the items listed in the attached Bid schedule for the unit prices stated.

The Bidder agrees that the cost of any work performed, materials furnished, services provided or expenses incurred, which are not specifically delineated in the Contract Documents but which are incidental to the scope, intent, and completion of the Contract, shall be deemed to have been included in the prices bid for the various items scheduled.

Addendum No.	Date Received

Bidder acknowledges receipt of the following addenda:

follows:		
Signed, sealed, and dated this	day of	
Bidder Mailing Address:		(Seal) Company Name
	By:	
	Title:	
	By:	
	Title:	

Bidder further declares that the full name and resident address of Bidder's Principal is as

BIDDING INSTRUCTIONS

FAILURE TO RETURN THE FOLLOWING BID DOCUMENTS WILL RESULT IN THE BID BEING DEEMED NON-RESPONSIVE AND AUTOMATIC REJECTION:

- 1. City Bid Schedule,
- 2. Applicable Compliance Specifications Sheets, and
- 3. Applicable Addenda Acknowledgement, Page 6.
- 4. Bid Bond

BIDDING REQUIREMENTS

GDOT Specification – Section 102-Bidding Requirements and Conditions will be followed for this bid package.

Interested parties shall submit their completed bid by the date and time designated on the cover sheet to the City of Johns Creek Purchasing Office. Any bids received after the deadline will be returned to the bidder. It is understood and agreed that this bid shall be valid and held open for a period of thirty (30) days from bid opening date.

The following items will be included in the bid response package.

- 1. Completed BID TAB Sheet
- 2. Bid bond
- 3. Certificate of Insurance
- 4. E-verify/SAVE Affidavit
- 5. The bidder shall provide project references to verify experience completing projects of similar scope.

Omission of any of the above items may disqualify the bidder from competition.

BID SCHEDULE:

Release of Bid 8/17/16

Pre-bid Conference 8/30/16 @ 10:00AM Deadline for Questions 9/01/16 @ 5:00 PM

Response to Questions 9/02/16

Bid Due Date: 9/06/16 @ 2:00 PM

Anticipated Notice to Proceed 10/01/16

Project Completion Date 90 calendar days

INSURANCE REQUIREMENTS

Within 10 days of Notice of Award, and at all times that this Contract is in force, the Contractor shall obtain, maintain and furnish the City Certificates of Insurance from licensed companies doing business in the State of Georgia with an A.M. Best Rating A-6 or higher and acceptable to the City covering:

- 1. Statutory Workers' Compensation Insurance
 - (a) Employers Liability:

Bodily Injury by Accident - \$100,000 each accident

Bodily Injury by Disease - \$500,000 policy limit

Bodily Injury by Disease - \$100,000 each employee

- 2. Comprehensive General Liability Insurance
 - (a) \$1,000,000 limit of liability per occurrence for bodily injury and property damage Owner's and Contractor's Protective
 - (b) Blanket Contractual Liability
 - (c)I Blanket "X", "C", and "U"
 - (d) Products/Completed Operations Insurance
 - (e) Broad Form Property Damage
 - (f) Personal Injury Coverage
- 3. Automobile Liability
 - (a) \$1,000,000 limit of liability
 - (b) Comprehensive form covering all owned, non-owned and hired vehicles
- 4. Umbrella Liability Insurance
 - (a) \$1,000,000 limit of liability
 - (b) Coverage at least as broad as primary coverage as outlined under Items 1, 2, and 3 above
- 5. The City of Johns Creek, Georgia, and its subcontractors and affiliated companies, their officers, directors, employees shall be named on the Certificates of Insurance as additional insured and endorsed onto the policies for Comprehensive General Liability, Automobile Liability and Umbrella Liability insurance maintained pursuant to this Contract in connection with liability of the City of Johns Creek and their affiliated companies and their officers, directors and employees arising out of Contractor's operations. Copies of the endorsements shall be furnished to the City prior to execution of the contract. Such insurance is primary insurance and shall contain a Severability of Interest clause as respects each insured. Such policies shall be non-cancelable except on thirty (30) days written notice to the City. Any separate insurance maintained in force by the additional insured named above shall not contribute to the insurance extended by Contractor's insurer(s) under this additional insured provision.

Certificate Holder should read: The City of Johns Creek, Georgia, 12000 Findley Rd, Suite 400, Johns Creek, Georgia 30097.

BONDING REQUIREMENTS

Each bid must be accompanied with a BID BOND (bond only: certified checks or other forms are not acceptable) in an amount equal to five percent (5%) of the base bid, payable to the City of Johns Creek. Said bid bond guarantees the bidder will enter into a contract to construct the project strictly within the terms and conditions stated in this bid and in the bidding and contract documents, should the construction contract be awarded.

The Successful Bidder shall be required to furnish a bond for the faithful performance on the contract and a bond to secure payment of all claims for materials furnished and/or labor performed in performance of the project, both in amounts equal to one hundred percent (100%) of the contract price.

Bonds shall be issued by a corporate surety appearing on the Treasury Department's most current list (Circular 570 as amended) and be authorized to do business in the State of Georgia.

Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners shall execute Bond.

BID BOND

KNOW ALL	MEN BY THE	SE PRE	SENTS	S, THAT				
(Name of Con	tractor)							
(Address		of		(Contracto	or)		at
(Corporation,	Partnership an	d or Ind	lividual) hereinafter cal	led Princ	_ ipal, and		
(Name of Surety)								-
(Address of Surety								-
				, and called Surety, and				
(Name of Obli 12000 Findley	Rd., Suite-400), Johns	Creek,	Georgia 30097				
(Address of O	bligee)							
Hereinafter of	referred			Obligee, Dollars (\$				sum noney of
	ites, for the pa	yment o	f which	sum well and successors, join	truly to b	e made,	we bind ou	ırselves,

WHEREAS, the Principal is about to submit, or has submitted, to the City of Johns Creek, Georgia, a proposal for furnishing materials, labor and equipment for:

State Bridge Rd & Parkway Baptist and John's Creek Parkway at Technology Circle Traffic Signals

WHEREAS, the Principal desires to file this Bond in accordance with law in lieu of a certified Bidder's check otherwise required to accompany this Proposal.

NOW, THEREFORE, the conditions of this obligation are such that if the bid is accepted, the Principal shall within ten days after receipt of notification of the acceptance execute a Contract in accordance with the Bid and upon the terms, conditions, and prices set forth in the form and manner required by the City of Johns Creek, Georgia, and execute a sufficient and satisfactory Performance Bond and Payment Bond payable to the City of Johns Creek, Georgia, each in an amount of 100% of the total Contract Price, in form and with security satisfactory to said the City of Johns Creek, Georgia, and otherwise, to be and remain in full force and virtue in law; and the Surety shall, upon failure of the Principal to comply with any or all of the foregoing

requirements within the time specified above, immediately pay to the City of Johns Creek, Georgia, upon demand, the amount hereof in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

PROVIDED, FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant, to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including, but not limited to, O.C.G.A. SS 13-10-1, et. Seg. And SS 36-86-101, et. Seg. And is intended to be and shall be constructed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this	day of		A.D., 20
ATTEST:			
(Principal Secretary)		(Principal)	
(SEAL)	BY		
(Witness to Principal)	-	(Address)	
(Address)	-		
(Surety)			
ATTEST BY:			
(Attorney-in-Fact) and Resident Agent			
(Attorney-in-Fact)			
(Seal) (Address)			
(Witness as to Surety)			
(Address)			

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: THAT

void, otherwise to remain in full force and effect.

(Name of Contractor)
(Address of Contractor)
a (Corporation, Partnership or Individual)
Hereinafter called Principal, and
(Name of Surety)
(Address of Surety)
A Corporation of the State of and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held and firmly bound unto
The City of Johns Creek. Georgia (Name of Obligee) 12000 Findley Rd., Suite-400, Johns Creek, Ga. 30097 (Address of Obligee)
hereinafter referred to as Obligee; are held firmly bound unto said Obligee and all persons doing work or furnishing skill, tools, machinery, supplies, or material under or for the purpose of the Contract hereinafter referred to, in the penal sum of:
The condition of this obligation is such, as whereas the Principal entered into a certain contract, hereto attached, with the Obligee, dated for:
NOW THEREFORE, the conditions of this obligation are such that if the above bound Principal shall well, truly, fully and faithfully perform said contract according to its terms, covenants, conditions, and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the oblige, with or without notice to the Surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreement of any and all duly authorized modifications of said contract that may hereafter be made, then his obligation shall be

PROVIDED FURTHER, that said Surety to this Bond, for value received, hereby stipulates and agrees that no change, extension of time, alterations, or additions to the terms of the Contract or

to the Work to be performed thereunder shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alterations, or additions to the terms of the Contract or to the work to be performed thereunder.

PROVIDED, FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including but not limited to, O.C.G.A. SS 13-10-1 et. Eq. and SS 36-86-101, et. Seg., and is intended to be and shall be construed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this	day of		A.D., 20
ATTEST:			
(Principal Secretary)		(Principal)	
(SEAL)			
BY:			
(Witness to Principal)			
(Address)			
(Surety)			
ATTEST BY:Attorney-in-Fact) and Resid	dent Agent		
(Attorney-in-Fact)			
(Seal)			
(Address)	-		
(Witness as to Surety)	-		
(Address)			

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: THAT

(Name of Contractor)
(Address of Contractor)
a(Corporation, Partnership or Individual)
Hereinafter called Principal, and
(Name of Surety)
(Address of Surety)
a Corporation of the State of and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held and firmly bound unto
The City of Johns Creek Georgia (Name of Obligee) 12000 Findley Rd., Suite-400, Johns Creek, Georgia 30097 (Address of Obligee)
hereinafter referred to as Obligee; for the use and protection of all subcontractors and all persons supplying labor, services, skill, tools, machinery, materials and/or equipment in the prosecution of the work provided for in the contract herein after referred to in the full and just sum of Dollars
(\$) in lawful money of the United States, for the payment of which sum well and truly to be made, the Principal and Surety bind themselves, their, and each of their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.
The condition of this obligation is such, as whereas the Principal entered into a certain contract. hereto attached, with the Obligee, dated for
NOW, THEREFORE, the conditions of this obligation are such that if the Principal shall well, truly, and faithfully perform said Contract in accordance to its terms, covenants, and conditions, and shall promptly pay all persons furnishing labor, materials, services, skill, tools, machinery and/or equipment for use in the performance of said Contract, then this obligation shall be void; otherwise, it shall remain in full force and effect.

All persons who have furnished labor, materials, services, skill, tools, machinery and/or equipment for use in the performance of said Contract shall have a direct right of action on this Bond, provided payment has not been made in full within ninety (90) days after the last day on which labor was performed, materials, services, skill, tools, machinery, and equipment furnished or the subcontract completed.

PROVIDED FURTHER, that said Surety to this Bond, for value received, hereby stipulates and agrees that no change, extension of time, alterations, or additions to the terms of the Contract or to the Work to be performed thereunder shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alterations, or additions to the terms of the Contract or to the work to be performed thereunder.

PROVIDED, HOWEVER, that no suit or action shall be commenced hereunder by any person furnishing labor, materials, services, skill, tools, machinery, and/or equipment having a direct contractual relationship with a subcontractor, but no contractual relationship express or implied with the Principal:

Unless such person shall have given notice to the Principal within One Hundred and Twenty (150) days after such person did, or performed the last of the work or labor, or furnished the last of the materials, services, skill, tools, machinery and/or equipment for which claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials, services, skill, tools, machinery and/or equipment were furnished, or for whom the work or labor was done or performed. Such a notice shall be served by mailing the same by registered mail, postage prepaid, in an envelope addressed to the Principal, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the State in which the aforesaid project is located, save that such service need not be made by a public officer, and a copy of such notice shall be delivered to the Obligee, to the person and at the address provided for in the Contract, within five (5) days of the mailing of the notice to the Principal.

PROVIDED, FURTHER, that any suit under this bond must be instituted before the expiration of one (1) year after the acceptance of the public works covered by the Contract by the proper authorities.

PROVIDED, FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including, but not limited to, O.C.G.A. SS 13-10-1, et. Eq. and SS 36-86-101, et. Seg., and is intended to be and shall be construed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this	day of	A.D., 20
ATTEST:		
(Principal Secretary)	(Princip	pal)
(SEAL)	BY:	
(Witness to Principal)	(Addres	ss)
(Address)		

ATTEST	(Surety) BY:
ATTEST	(Attorney-in-Fact) and Resident Agent
(Attorney-in-Fact)	
(Seal)	
(Address)	
(Witness as to Surety)	-
(Address)	

QUALIFICATIONS SIGNATURE AND CERTIFICATION

(Bidder to sign and return)

I certify that this offer is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a proposal for the same materials, supplies, equipment, or services and is in all respects fair and without collusion or fraud. I understand collusive bidding is a violation of State and Federal Law and can result in fines, prison sentences, and civil damage awards. I agree to abide by all conditions of the proposal and certify that I am authorized to sign this proposal for the proposer. I further certify that the provisions of the Official Code of Georgia Annotated, Sections 45-10-20 et. Seq. have not been violated and will not be violated in any respect.

Authorized Signatur	e		Dat	e				
Print/Type Name								
Print/Type Company	y Name Here							
CORPORATE CER	TIFICATE							
I,named as Contracto	r in the foregoin	ng bid; that	certify th	at I am th	e Secre	tary of t	he Corpor	ation
who signed said bid of said Corporation						of said (Corporatio	n by
authority of its Boa Corporation is								
		·						
This	day of		_, 20					
		(Seal)						
(Signature)								
LIST OF SUBCON	ΓRACTORS							
I do, do propose to Subcontra					of the	work on	this proje	ect. I
Company Name:								

The City of Johns Creek requires minimum of 51% participation by the prime Contractor on all projects.

EXHIBIT A BID SPECIFICATIONS

Description:

The City of Johns Creek is requesting quotes from GDOT Prequalified Traffic Signal Contracting Firms to install a mast arm intersection per the attached signal plans.

Specifications:

The contractor will install the signal per MUTCD, Georgia DOT specifications, and NEC/NESC guidelines. A site visit is advisable prior to sending a quote. The contractor will be responsible for all other materials and labor.

Additional Requirements:

- The contractor will be responsible for all traffic control including the hiring of off duty law enforcement officers to direct traffic, if needed.
- The contractor will be responsible for all utility locates and conflict resolution.
- Since the cabinet location is being moved, the contractor is responsible for splicing new drop cable to be routed from existing closure to the new cabinet location.
- The City of Johns Creek's Transportation Division is to be notified once the mast arm foundations are dug; the cage is set and prior to the concrete pour for verification. The contractor will be responsible for all concrete testing and will provide all test results to the City of Johns Creek. If multiple concrete trucks are used, the City of Johns Creek requires test samples from each truck. Although not required to use this vendor for testing, the contractor is advised that SM&E is located in the City of Johns Creek on Johns Creek Pkwy.
- No night, weekend, or holiday work will be done without prior approval from the City. Payment:

The contractor shall submit unit prices and a lump sum price for all work to be performed.

Notice to Proceed:

Once notice to proceed is given, the contractor will have 250 days to complete the installation.

EXHIBIT B BID SCHEDULE BID CONTINUATION SHEET

DEPT.		Attention Vendor: Please be sure to write or type your company name below before returning bid. Company
		Name:
BID/RFP:	BID 16-252	
PAGE #		

Item Number	Description	Qty.	Unit	Cost	Extension
	Sum Total for Signal 1 Installation	1	LUMP		
	Sum Total for Signal 2 Installation	1	LUMP		
150-1000	TRAFFIC CONTROL	-	LUMP		
634-1200	RIGHT OF WAY MARKERS	6	EA		
636-1033	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 9	5	SF		
636-1036	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 11	32	SF		
636-1045	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 11	112	SF		
636-2070	GALVANIZED STEEL POSTS, TP 7	13	LF		
636-2080	GALVANIZED STEEL POSTS, TP 8	43	LF		
639-3004	STEEL STRAINED POLE, TYPE IV, WITH 40' MAST ARM	2	EA		

639-3004	STEEL STRAINED POLE, TYPE IV, WITH 45' MAST ARM	1	EA	
639-3004	STEEL STRAINED POLE, TYPE IV, WITH 75' MAST ARM	1	EA	
639-3004	STEEL STRAINED POLE, TYPE IV, WITH 80' MAST ARM	1	EA	
639-3004	STEEL STRAINED POLE, TYPE IV, WITH DUAL 40' AND 65' MAST ARMS	1	EA	
647-1000	TRAFFIC SIGNAL INSTALLATION	1	LUMP	
647-2150	PULLBOX, PB-4	1	EA	
653-1704	THERMOPLASTIC SOLID TRAFFIC STRIPE, 24 IN, WHITE	75	LF	
653-1804	THERMOPLASTIC SOLID TRAFFIC STRIPE, 8 IN, WHITE	625	LF	
682-6222	CONDUIT, NONMETAL, TYPE 2, 2 IN	60	LF	
682-6233	CONDUIT, NONMETAL, TYPE 3, 2 IN	3055	LF	
682-9950	DIRECTIONAL BORE, 5 IN	160		
682-9950	DIRECTIONAL BORE, 7 IN	840	LF	
937-1000	VIDEO CAMERA SENSOR ABILITY, ITERIS	8	EA	
937-8010	TESTING - VIDEO DETECTION SYSTEM	-	LUMP	
937-8510	TRAINING - VIDEO DETECTION SYSTEM	-	LUMP	

EXHIBIT C

IMMIGRATION AND SECURITY FORM CONTRACTOR AFFIDAVIT AND AGREEMENT

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm, or corporation which is contracting with the City of Johns Creek has registered with and is participating in a federal work authorization program* [any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 989-603], in accordance with the applicability provisions and deadlines established in O.C.G.A. 13-10-91.

The undersigned further agrees that, should it employ or contract with any subcontractor(s) in connection with the physical performance of services pursuant to this contract with the City of Johns Creek, contractor will secure from such subcontractors(s) similar verification of compliance with O.C.G.A. 13-10-91 on the Subcontractor Affidavit provided in Rule 300-10-01-.08 or substantially similar form. Contractor further agrees to main records of such compliance and provide a copy of each such verification to the City of Johns Creek at the time of the subcontractor(s) is retained to perform such service.

EEV / Basic Pilot Program* User Identification Number						
BY: Authorized Officer or Agent (Contractor Name)	Date					
Title of Authorized Officer or Agent of Contractor						
Printed Name of Authorized Officer or Agent						
SUBSCRIBED AND SWORN BEFORE ME ON						
THIS DAY OF 201						
Notary Public						
My Commission Expires:						

*As of the effective date of O.C.G.A. 13-10-91, the applicable federal work authorization program is the "EEV/Basic Pilot Program" operated by the U.S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in conjunction with the Social Security Administration (SSA). (End of Form)

Affidavit Verifying Lawful Presence Within the United States

		65			
I, (print name) of perjury that	(check one):	, swear or affirm under penalty			
	I am a United States citizen or legal permanent resident 18 years of age or older; or				
	I am a qualified alien or nonimmigrant under the Federal Immigration and Nationality Act 18 years of age or older lawfully present in the United States.				
Alien I	Registration Number:				
I am applying to products or se		ting with the City of Johns Creek, Georgia to provide			
understand that to receipt of the fictitious, or fra	at state law requires me to provis public benefit. I further acknowled	uired by law because I have applied for a public benefit. I vide proof that I am lawfully present in the United States prior owledge that knowingly and willfully making a false, tation in this affidavit shall be guilty of a violation of Code rgia.			
Print Name of Applicant		Position Title (if applicable)			
Signature of Applicant		Date			
Subscribed and sworn to before me on					
this the day of , 20					
(Clerk/Notary Public)					
Mv commissi	on expires:				

EXHIBIT D

SPECIAL PROVISIONS

Revised: September 13, 2013

Section 925JC — Traffic Signal Equipment

Uninterruptible Power System

A. Requirements

This specification shall be for a true-on-line, power conditioner and uninterruptible power system (UPS) with battery backup capability designed for transportation and traffic applications. The UPS shall be a totally microprocessor controlled and software driven power system. The inverter shall be in operation at all times supplying clean regulated power (both voltage and frequency) to all loads, at all times. The UPS system must be fully power factor corrected and fully functional with any type of auxiliary power generator. The UPS system shall be furnished and installed in conformance with the following specification.

System Example:

Techpower Developments Uninterruptible Power System (DBL 1000MX)

Internal 1-Port NetAgent II SNMP Card (CP504B)

Techpower Developments Hot-Swap Generator Bypass System

MK Battery Traffic Series AGM Battery Set (24HR3000S-MK)

All associated wiring and connectors

External Cabinet with side-mounted watertight receptacle for connecting to external generator with twist type plug

1. Operation:

- a. The UPS shall provide a minimum two (2) hours of full run-time operation for an -LED-only intersection (minimum 1000W/1000VA active output capacity, with 80% minimum inverter efficiency)
- b. The maximum transfer time allowed, from disruption of normal utility line voltage to stabilized inverter line voltage from batteries, shall be 0 milliseconds. The same maximum allowable transfer time shall also apply when switching from inverter line voltage to utility line voltage.
- c. The UPS shall include a Manual Bypass Switch which provides capability to transfer the power service to disable the UPS and operate only from the power service or external generator provided.
- d. The UPS shall provide the user with 3-sets of normally open (NO) and normally closed (NC) single-pole double-throw (SPDT) dry relay contact closures, available on a panel-mounted terminal block, rated at a minimum 120V/1A, and labeled so as to identify each contact.
 - 1) The first set of NO and NC contact closures shall be energized whenever the unit switches to battery power.

Contact shall be labeled or marked -On Batt.

- 2) The second set of NO and NC contact closures shall be energized whenever the battery approaches approximately 40% of remaining useful capacity. Contact shall be labeled or marked –Low Batt. ||
- 3) The third set of NO and NC contact closures shall be energized two hours after the unit switches to battery power. Contact shall be labeled or marked —Timer. I
- 4) Relay contact activation shall be annunciated on the front panel via a visual indication. This can be either discreet LED, or part of LCD screen, etc.

- e. Operating temperature for both the inverter/charger, power transfer relay and manual bypass switch shall be -37 °C (-35F) to +74 °C (+165 F)
- f. Both the Power Transfer Relay and Manual Bypass Switch shall be rated at 240VAC/30 amps, minimum
- g. The UPS shall use a temperature-compensated battery charging system. The charging system shall compensate over a range of 2.5 4.0 mV/ °C (5-8 F) per cell. The temperature sensor shall be external to the inverter/charger unit. The temperature sensor shall come with 3 meters (10 feet) of wire
- h. Batteries shall not be recharged when battery temperature exceeds 50 °C (122 F) \pm 3 °C (6 F)
- i. UPS shall bypass the utility line power whenever the utility line voltage is outside of the following voltage range: 60VAC to 148VAC.
- j. When utilizing battery power, the UPS output voltage shall be at the user-defined level $\pm 1\%$, pure sine wave output, $\le 3\%$ THD, $\pm 3\%$ THD.
- k. UPS shall be compatible with CALTRANS Model 332A Cabinets, Model 170E Controllers, Model 2070 Controllers and cabinet components for full time operation.
- 1. n. UPS shall be equipped to prevent a malfunction feedback to the cabinet or from feeding back to the utility service.
- m. In the event of inverter/charger failure, battery failure or complete battery discharge, the power transfer relay shall revert to the NC (and de-energized) state, where utility line power is connected to the cabinet.
- n. Recharge time for the battery, from -protective low-cutoff to 80% or more of full battery charge capacity, shall not exceed twenty (20) hours.
- UPS shall be equipped with Ethernet communications module and email notification capability for alerts.

2. Mounting/Configuration

NOTE: All references made to EIA rail or EIA 19 (482.6mm) rack shall conform to Electronic Industries Standards

EIA-310-B, Racks, Panels, and Associated Equipment, with 10-32 -Universal Spacing | threaded holes.

- a. General
 - 1) Inverter/Charger Unit shall be shelf-mounted or rack-mounted on a standard EIA 19ll rack. If the inverter/charger is mounted inside the 332A Cabinet (Configuration 1), a shelf shall be provided that supports the weight of the unit.
 - 2) Power Transfer Relay and Manual Bypass Switch shall be mounted on EIA rail.
 - 3) All interconnect wiring shall be provided between Power Transfer Relay, Bypass Switch and Cabinet Terminal Service Block and shall be no less than 3 meters (9'10|) of UL Style 1015 CSA TEW with the following characteristics:
 - AWG Rating: 10 AWG
 - Stranding: 105 strands of 30 AWG tinned copper
 - Rating: 600 V, 105 °C, PVC Insulation
 - 4) Relay contact wiring provided for each set of NO/NC relay contact closure terminals shall be a minimum of 3 meters (10 feet) of UL Style 1015 CSA TEW 18 AWG wire, same ratings as above, except 16 strands of

30 AWG tinned copper. Wiring shall be of adequate length for particular installation.

- 5) All necessary hardware for mounting (shelf angles, rack, etc) shall be included in the bid price of the UPS. All bolts/fasteners and washers shall meet the following requirements: Screw type: Pan Head Phillips machine screw
 - Size and Thread pitch: 10-32
 - Material: 18-8 stainless steel (Type 316 stainless steel is acceptable as an alternate) Washer: Use one flat washer (18-8 stainless steel) under the

head of each 10-32 screw(provided that the screws are properly tightened, lock washers are unnecessary.)

- Number of screws per hinge bracket: Minimum of six (6) screws per hinge bracket spaced evenly along bracket, with one screw near each end.
- 6) The entire UPS, including batteries, shall be installed inside an externally mounted cabinet.
- 7) External Cabinet
 - a) The External Cabinet shall be used for housing batteries and/or UPS, which includes inverter/charger unit, power transfer relay, manually operated bypass switch, any other control panels, and all wiring and harnesses.
 - b) The same Inverter/Charger, Power Transfer Relay and manually operated Bypass Switch that fits inside a typical fully equipped CALTRANS Model 332A Cabinet shall also be able to fit inside the externally mounted cabinet.
 - c) The External Cabinet shall be a NEMA 3R rated cabinet conforming to $\underline{\text{TEES}}$, August 16, 2002

<u>Chapter 7, Section 2-Housings</u> for the construction and finish of the cabinet. The specific finish of the external cabinet shall match the finish of the 332A cabinet. Anti-Graffiti paint shall not be used. Two separate mounting installations shall be used. Refer to the project plans for the appropriate mounting installation.

- i. Mounting Installation Type A shall be typically used for installing at locations with existing 332 cabinet. This cabinet mounting installation shall attach the external cabinet to the left side of the 332 cabinet. Type A mounting installation shall use fasteners that meet the following requirements:
 - (Total of 8 bolts per cabinet with 2 flat washers per bolt and 1 K-lock nut per bolt) Cabinet mounting bolts shall be:
 - 18-8 Stainless Steel Hex Head (Fully Threaded)
 - 3/8" 16 xX 1" Washers shall be: Designed for 3/8" bolt
 - 18-8 Stainless Steel 1" OD round flat type
 - *K-lock washer shall be:*
 - 18-8 Stainless Steel, Hex Nut Assembled with Free-Spinning Tooth Washer
 - 3/8" 16 Screw size

External Cabinet to 332A Cabinet couplings shall provide a conduit for power connections between the 332A Cabinet and External Cabinet. The couplings shall consist of three parts and meet the following requirements:

- 2" Nylon Insulated, Steel Chase Nipple
- 2" Sealing, Steel Locknut
- 2" Nylon Insulated, Steel Bushing

The external cabinet shall come provided with all bolts, washers, nuts and cabinet-cabinet coupler fittings provided, necessary for mounting the external cabinet to the 332A Cabinet.

- ii. Mounting Installation Type B shall be typically used for locations where a new traffic controller cabinet and foundation are being installed. This cabinet installation shall provide the external battery cabinet as a base mount cabinet on the same foundation as the 332 cabinet. Connections between the cabinets shall be through conduit in the
 - cabinet. Connections between the cabinets shall be through conduit in the cabinet base. The external cabinet shall be installed in the same relationship as shown in figure 925-4 to the 332 cabinet. The external cabinet shall be installed so that it is centered on the 30 inch left side of the 332 cabinet.
- d) The specific dimensions and details of the external battery cabinet shall be 56"H x 26"W x 14"D.
- e) Four shelves shall be provided. There shall be a minimum of 304.8mm (12") clearance between shelves. Each shelf shall be a minimum of 263.65mm (10.38") X 635.0mm (25.1"), and capable of supporting a minimum of 57kg (125 lbs.) Shelf edges shall be

- turned down on all four sides for support and to provide a flat top surface. Shelves shall be predrilled with EIA rail mounting holes. Shelves shall provide a vertical passageway for wring in the rear of the cabinet on both the left and right.
- f) The bottom shelf shall be capable of being removed.
- g) The external cabinet shall be ventilated through the use of louvered vents, filter, and one thermostatically controlled fan as per TEES Chapter 7 Section 2-Housings.
- h) External cabinet fan shall be AC operated from the same line output of the Manual Bypass Switch that supplies power to the 332 Cabinet. A 2-position terminal block shall be provided on the fan panel, along with 3 meters (10 feet) of connected hookup wire.
- i) The door shall be attached to the cabinet through the use of either a continuous stainless steel piano hinge or four, two-bolts per leaf, hinges as per <u>TEES Chapter 7 Section 2</u>. The door shall use a padlock clasp or latch and lock mechanisms as described in the <u>TEES</u>, in order to lock the door.
- j) Two EIA angle rails, along with all necessary mounting hardware (4sets of 10-32 bolts and nuts with captive washers) shall be provided with the external cabinet (not installed) Rails shall be symmetric to allow for installation on either right or left sides of the cabinet. Mounting holes and bracket shall allow for EIA rail installation at any location in the external cabinet. The EIA mounting angle nominal thickness shall be either 0.1345 inch (3.4163mm) plated steel or 0.105 inch (2.667mm) stainless steel.
- k) EIA rail mounting bracket shall be of continuous, one-piece design bolted into the cabinet to provide adequate support for rail-mounted equipment.
- Pressed in, flush-head threaded screw posts shall be inserted into the front face of the
 cabinet enclosure top sill. These threaded posts shall be used to mount both the fan panel
 and the EIA rail-mounting bracket. The screw posts shall be #10-32 thread size stud 0.625
 inches in length.

3. Maintenance, Displays, Controls and Diagnostics

- a. The UPS shall include a display and /or meter to indicate current battery charge status and conditions.
 - 1) The UPS shall provide voltmeter standard probe input-jacks (+) and (-) to read the exact battery voltage drop at the inverter input.
 - 2) The UPS shall include a 0 to 100% battery capacity LED indicator.
- b. The UPS shall have lightning surge protection compliant with IEEE/ANSI C.62.41.
- c. The UPS shall be equipped with an integral system to prevent battery from destructive discharge and overcharge.
- d. The UPS and batteries shall be easily replaced with all needed hardware and shall not require any special tools for installation.
- e. The UPS shall include a front-panel event counter display to indicate the number of times the UPS was activated and a front-panel hour meter to display the total number of hours the unit has operated on battery power. Both meters shall have push button resets.
- f. Manufacturer shall include a set of equipment lists, operation and maintenance manuals, and board-level schematic and wiring diagrams of the UPS, and the battery data sheets. Manual shall conform to TEES August 16, 2002, Chapter 1, Section 1.2.4.2.

4. Battery System

- a. Individual batteries shall be:
 - 1) Voltage rating: 12V type
 - 2) Group size: 24 maximum
 - 3) Batteries shall be easily replaced and commercially available off the shelf.
- b. Batteries used for UPS shall consist of 3 to 8 batteries with a cumulative minimum rated capacity of 240 amp- hours.
- c. Batteries shall be certified by the manufacturer to operate over a temperature range of -40 °C (-40F) to +74 °C (+165 F)
- d. The batteries shall be provided with appropriate interconnect wiring and corrosion-resistant mounting trays and/or brackets appropriate for the cabinet into which they will be installed.
- e. Batteries shall indicate maximum recharge data and recharging cycles.

f. Battery Harness

- 1) Battery interconnect wiring shall be via two-part modular harness.
- 2) Part I shall be equipped with red (+) and black (-) 30.48 cm (12 inches) cabling that can be permanently connected to the positive and negative posts of each battery. Each red and black pair shall be terminated into an Anderson Power Pole Connector or AMP Power Series Connector or equivalent style connector.
- 3) Part II shall be equipped with the mating Power Pole style connector for the batteries and a single, insulated Power Pole style connection to the inverter/charger unit. Harness shall be fully insulated and constructed to allow batteries to be quickly and easily connected in any order to ensure proper polarity and circuit configuration.
- 4) Power Pole style connectors may be either one-piece or two-piece. If a two-piece connector is used, a locking pin shall be used to prevent the connectors from separating.
- 5) The length of the battery interconnect harness (Part II) shall be a minimum of 152.4 cm (60 inches) from the Inverter/Charger plug to the first battery in the string. The lateral length of the harness between battery connectors shall be a minimum of 30.48 cm (12 inches)
- 6) All battery interconnect harness wiring shall be UL Style 1015 CSA TEW or Welding Style Cable or equivalent, all of proper gauge with respect to design current and with sufficient strand count for flexibility and ease of handling.
- 7) Battery terminals shall be covered and insulated with molded boots so as to prevent accidental shorting.

B. Fabrication

Refer to Subsection 925.2.07.A.1 for controller cabinet minimum fabrication Specifications.

C. Acceptance

General Provisions 101 through 150. Each UPS shall be manufactured in accordance with a manufacturer Quality Assurance (QA) program. The QA program shall include two Quality Assurance procedures: (1) Design QA and (2) Production QA. The Production QA shall include statistically controlled routine tests to ensure minimum performance levels of UPS units built to meet this specification and a documented process of how problems are to be resolved. The manufacturer, or an independent testing lab hired by the manufacturer, shall perform Design Qualification Testing on new UPS system(s) offered, and when any major design change has been implemented on an existing design. A major design change is defined as any modification, material, electrical, physical or theoretical, that changes any performance characteristics of the system, or results in a different circuit configuration. Where a dispute arises in determining if a system is a new design or if the system has had a major design change, the State will make the final determination if Design Qualification Testing is required prior to production consideration.

Production Quality Control tests shall be performed on each new system prior to shipment. Failure to meet this requirements shall be cause for rejection. The manufacturer shall retain test results for seven years. Each UPS shall be given a minimum 100-hour burn-in period to eliminate any premature failures. Each system shall be visually inspected for any exterior physical damage or assembly anomalies. Any defects shall be cause for rejection.